

ABSTRACT OF THE DISCLOSURE

A driving apparatus includes a rotor rotatable about a rotational axis and having a cylindrical magnet portion whose outer circumferential surface
5 are divided along a circumferential direction into a plurality of differently magnetized portions, at least an outer magnetic pole portion formed extending in a direction parallel to the rotational axis of the rotor, and facing the outer circumferential surface
10 of the magnet portion, an inner magnetic pole portion formed opposingly to the outer magnetic pole portion, and facing an inner circumferential surface of the magnet portion, and a coil for magnetically exciting the outer and inner magnetic pole portions. The coil
15 is arranged along a direction of the rotational axis of the rotor. The rotor can be selectively held at one of three stop positions, and a condition of $-0.3X + 0.72 < Y$ is satisfied where Y is a ratio of a central angle of each outer magnetic pole portion
20 relative to a central angle of each magnetized pole in the magnet portion, and X is a ratio of a circumferential length of each magnetized pole in the magnet portion relative to a thickness of the magnet portion in its radial direction.